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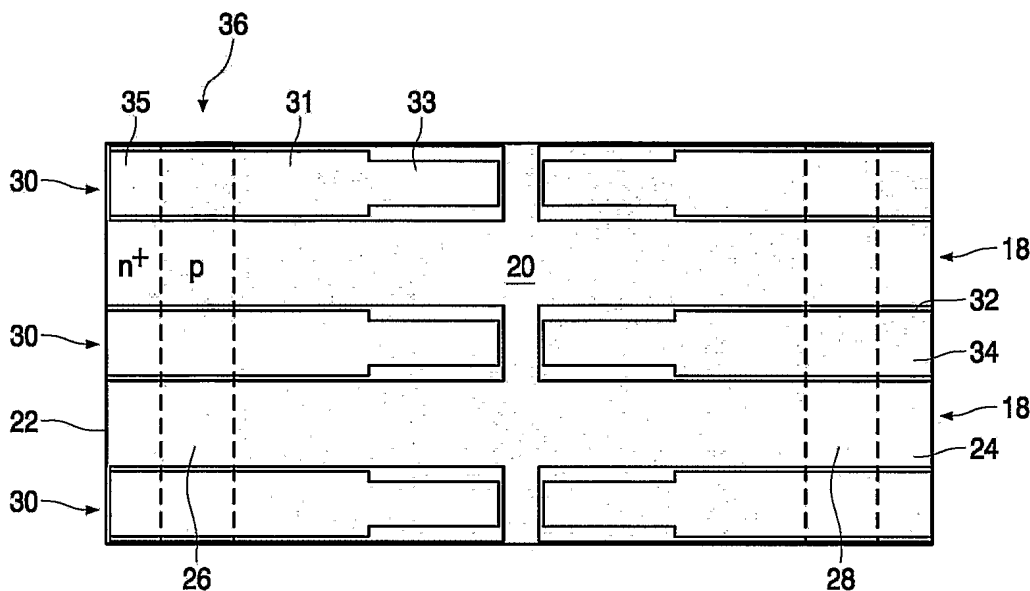
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(54) Title: LATERAL FIELD-EFFECT TRANSISTOR HAVING AN INSULATED TRENCH GATE ELECTRODE



(57) Abstract: A field-effect transistor having cells (18) each having a source region (22), source body region (26), drift region (20), drain body region (28) and drain region (24) arranged longitudinally, laterally alternating with structures to achieve a reduced surface field. In embodiments, the structures can include longitudinally spaced insulated gate trenches (35) defining a gate region (31) adjacent the source or drain region (22, 24) and a longitudinally extending potential plate region (33) adjacent the drift region (20). Alternatively, a separate potential plate region (33) or a longitudinally extending semi-insulating field plate (50) may be provided adjacent the drift region (20). The transistor is suitable for bi-directional switching.

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**Declaration under Rule 4.17:**

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